CLAIMS

1. A drug delivery system consisting of one or more compartments and comprising a progestogenic compound dissolved in a thermoplastic polyethylene vinylacetate copolymer whereby,
- if the delivery system consists of one compartment, the compartment comprises
(i) a core of a thermoplastic polyethylene vinylacetate copolymer comprising the progestogenic compound, such progestogenic compound being dissolved in the polyethylene vinylacetate copolymer up to a concentration below the saturation level at 25°C, and an estrogenic compound; and
(ii) a skin of a thermoplastic polyethylene vinylacetate copolymer covering the core, said skin being permeable for both compounds;
- if the delivery system consists of more than one compartment, only one compartment comprises
(iii) the progestogenic compound, such progestogenic compound being dissolved in a core of a thermoplastic polyethylene vinylacetate copolymer up to a concentration below the saturation level at 25°C, and an estrogenic compound; and
(iv) a skin of a thermoplastic polyethylene vinylacetate copolymer covering the core, said skin being permeable for both compounds.

2. A drug delivery system according to claim 1, wherein the progestogenic compound is a steroidal progestogenic compound and/or the estrogenic compound is a steroidal estrogenic compound.

3. A drug delivery system according to anyone of claims 1 and 2, wherein the polyethylene vinylacetate copolymer of the core is a copolymer containing 30 to 50 wt% vinylacetate.

4. A drug delivery system consisting of one or more compartments and comprising a progestogenic compound dissolved in a thermoplastic polyethylene vinylacetate copolymer whereby,
- if the delivery system consists of one compartment, the compartment comprises

(i) a core of a thermoplastic polyethylene vinylacetate copolymer, said copolymer containing 30 to 50 wt% vinylacetate, and said core comprising a progestogenic compound, said progestogenic compound being dissolved in the polyethylene vinylacetate copolymer up to a concentration below the saturation level at 25°C, and an estrogenic compound; and
(ii) a skin of a thermoplastic polyethylene vinylacetate copolymer
covering the core, said copolymer containing 1 to 15 wt% vinylacetate, said skin being permeable for both compounds, and said skin having a thickness in the range of 10 to 110 µm;
- if the delivery system consists of more than one compartment, only one compartment comprises
(iii) the progestogenic compound, such progestogenic compound being dissolved in a core of a thermoplastic polyethylene vinylacetate copolymer up to a concentration below the saturation level at 25°C, said copolymer containing 30 to 50 wt% vinylacetate, and an estrogenic compound; and
(iv) a skin of a thermoplastic polyethylene vinylacetate copolymer covering the core, said copolymer containing 1 to 15 wt%
vinylacetate, said skin being permeable for both compounds, and said skin having a thickness in the range of 10 to 110 µm.

5. A drug delivery system consisting of one or more compartments and comprising a progestogenic compound dissolved in a thermoplastic polyethylene vinylacetate copolymer whereby,
- if the delivery system consists of one compartment, the compartment comprises
(i) a core of a thermoplastic polyethylene vinylacetate copolymer, said copolymer containing 30 to 50 wt% vinylacetate, and said core comprising a progestogenic compound, such progestogenic compound being dissolved in the polyethylene vinylacetate copolymer up to a concentration below the saturation level at 25°C, and an estrogenic compound; and
(ii) a skin of a thermoplastic polyethylene vinylacetate copolymer covering the core, said copolymer containing 14 to 28 wt% vinylacetate, said skin being permeable for both compounds, and said skin having a thickness of 70 to 250 µm;

- if the delivery system consists of more than one compartment, only one compartment comprises
(iii) the progestogenic compound, such progestogenic compound being dissolved in a core of a thermoplastic polyethylene vinylacetate copolymer up to a concentration below the saturation level at 25°C, said copolymer containing 30 to 50 wt% vinylacetate, and an estrogenic compound; and
(iv) a skin of a thermoplastic polyethylene vinylacetate copolymer covering the core, said copolymer containing 14 to 28 wt% vinylacetate, said skin being permeable for both compounds, and said skin having a thickness of 70 to 250 μm.

6. A drug delivery system according to anyone of claims 1-5, wherein the progestogenic compound is etonogestrel.

7. A drug delivery system according to claim 6 wherein the release on day 21 of etonogestrel of the drug delivery system is 80 μg / day or more.

8. A drug delivery system according to anyone of claims 1-7, wherein the estrogenic compound is ethinyl estradiol

9. A drug delivery system according to anyone of claims 1-8, wherein the system is ring-shaped.

10. A drug delivery system according to anyone of claims 1-9, wherein the drug delivery system consists of one compartment.

11. A drug delivery system according to anyone of claims 1-10, wherein the drug delivery system is a drug delivery system for intravaginal use.

12. A drug delivery system according to anyone of claims 1-11, wherein the drug delivery system does not need special storage and transportation conditions at a temperature below room temperature.

13. A method of manufacturing a drug delivery system according to claim 9 comprising the steps of:

(i) producing a medicated homogenous polyethylene vinylacetate copolymer core granulate, comprising a progestogenic and an estrogenic compound;
(ii) co-extruding the core granulate with a polyethylene vinylacetate copolymer skin granulate, resulting in a copolymer fiber comprising a core covered by a skin;
(iii) assembling the fibre into a ring.

14. A method according to claim 13, wherein the core granulate in step (i) is lubricated with a lubricant.

15. Use of the drug delivery system of claims 1-12 for the manufacture of a contraceptive kit or kit for hormone-replacement therapy.

16. Use of the drug delivery system of claims 1-12 for the manufacture of a combination preparation to provide contraception whilst simultaneously to treat and/or prevent a sexually transmitted disease.